THE HAMNER INSTITUTES FOR HEALTH SCIENCES
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The Hamner Institutes For Health Sciences Partners With EPA

Collaborative Effort Will Predict Toxicity Potentials Of Environmental Chemicals

RESEARCH TRIANGLE PARK, N.C. – The Hamner Institutes for Health Sciences (www.thehamner.org) has signed a memorandum of understanding (MOU) with the U.S. Environmental Agency's (EPA) National Center for Computational Toxicology (NCCT). The agreement establishes a one-year collaborative research effort to further the science of the NCCT ToxCast™ program. The approaches developed in this research effort have the potential to revolutionize the way EPA evaluates chemicals for toxicology and human health risks.

Initially, researchers in the ToxCast™ program will use a wide range of high-throughput biochemical and cell-based assays that are designed to characterize key endpoints in the state of a cell or tissue to evaluate the effects of a set of chemicals that have known toxicities. The results from the assays will be used to see if they can be used to forecast the adverse effects observed in laboratory animals and humans. If the results are predictive, the ToxCast™ program will provide a quicker and more efficient way to assess the toxicity of environmental chemicals as compared to traditional animal-based testing.

The goal of the collaboration between The Hamner and the EPA is to integrate the results from the biochemical and cellular assays with the computational modeling of how chemicals move through the human body in order to understand whether the effects observed in the high-throughput assays may be observed at relevant human does. The integration of these approaches represents the first critical step in incorporating the recommendations of the National Academy of Sciences report for "Toxicity Testing in the 21st Century."

The MOU was signed by Dr. William F. Greenlee, president and CEO of The Hamner Institutes for Health Sciences, and Dr. Robert Kavlock, director of the EPA's National Center for Computational Toxicology. The Hamner's research team will be led by Dr. Russell S. Thomas and will include Dr. Harvey J. Clewell III, Dr. Melvin E. Andersen, Dr. Cecilia Tan and Ling-Chieh Tsai.

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Quotes:
"The Hamner's collaboration with the EPA provides a vital opportunity to leverage the expertise and effort from both institutions to develop more predictive methods for evaluating a large number of chemicals for potential toxicity to humans than the current hazard identification approaches based on high doses in rodents," said Dr. Greenlee.

"We very much welcome the opportunity to work with The Hamner scientists in the ToxCast program, as the combination of expertise available across the two world class organizations will move us forward faster" said Dr. Kavlock.

About the U.S. Environmental Protection Agency (EPA):
Established in 1970, the U.S. Environmental Protection Agency (EPA) relies on quality science as the basis for sound policy and decision-making. EPA's laboratories and research centers, as well as its research grantees, are building the scientific foundation needed to support the agency's mission to safeguard human health and the environment. EPA employs 17,000 people across the country, including its headquarters offices in Washington, DC, 10 regional offices, and more than a dozen labs. For more information, visit www.epa.gov.

About The Hamner Institutes for Health Sciences:
Located on a 56-acre campus in Research Triangle Park, North Carolina, The Hamner Institutes for Health Sciences is an independent, nonprofit organization that unites academia, the private sector and government to conduct translational research to improve public health and expedite the development of new medicines. With the ultimate goal of preventing and curing disease, The Hamner offers an open, collaborative and cross-disciplinary approach to strengthen the research investment in biomedical sciences. CIIT, the flagship institute for The Hamner, has been recognized for more than 30 years as a leader in research in environmental risk assessment and health sciences. For more information, please visit www.thehamner.org or call 919-558-1200.

Keywords:
The Hamner For Health Sciences, Dr. William F. Greenlee, Environmental Risk Assessment, Research Triangle Park, Pharmaceutical Drug Development, Translational Biomedical Sciences, Public Health, Memorandum of Understanding, MOU, U.S. Environmental Agency, EPA, Office of Research and Development, National Center for Computational Toxicology, NCCT, ToxCast, Dr. Robert Kavlock, Dr. Harvey J. Clewell III, Dr. Melvin E. Andersen, Dr. Russell S. Thomas, , Dr. Cecilia Tan, Ling-Chieh Tsai.

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